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ABSTRACT

The first National Education Goal agreed to be President Bush and the nation's governors is that all children will start school ready to learn. The first objective under that goal is that of providing high quality and developmentally appropriate preschool programs for all disadvantaged and disabled children. This paper seeks to assist efforts to achieve that objective by defining key concepts and providing background information concerning the size of the target population, levels of preschool participation by disadvantaged and disabled children, and indicators of the quality of the programs in which disadvantaged and disabled children are enrolled. Enrollment patterns are described in terms of the preschool participation of disadvantaged children, private versus public programs, trends in enrollment by income across time, differences by race and Hispanic origin, preprimary enrollment levels among Hispanic children, Head Start, prekindergarten programs supported by Chapter 1 funds, and state-funded prekindergarten programs. Data indicate that about half of the 4-year-olds in poor families nationwide receive preschool instruction, either from Head Start, Chapter 1, or state-funded programs. The same is true for less than 20 percent of poor 3-year-olds. By 5 years of age, nearly all children from low-income families are enrolled in public school kindergarten or prekindergarten programs. An appendix describes the kind of data system that would be desirable for the monitoring of progress toward the objective of providing high quality programs to all disadvantaged children. (56 references) (RH)

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TO PROVIDE PRESCHOOL PROGRAMS FOR DISADVANTAGED
AND DISABLED CHILDREN TO ENHANCE THEIR SCHOOL READINESS:
BACKGROUND PAPER ON A NATIONAL EDUCATIONAL GOAL

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TO PROVIDE PRESCHOOL PROGRAMS FOR DISADVANTAGED
AND DISABLED CHILDREN TO ENHANCE THEIR SCHOOL READINESS:
BACKGROUND PAPER ON A NATIONAL EDUCATIONAL GOAL

The first of the National Education Goals recently agreed to by President Bush and the nation's governors is that:

"By the year 2000, all children in America will be school ready to learn" (U.S. Department of Education, p. 4, 1990).

The first objective set forth under this goal is that:

"All disadvantaged and disabled children will have access to high quality and developmentally appropriate preschool programs that help prepare children for school."

This paper seeks to assist efforts to achieve this objective by setting out definitions of key concepts and providing background information on the size of the target population, current levels of preschool participation by disadvantaged and disabled children, and indicators of the quality of the programs they are receiving. In addition, an appendix describes the kind of data system that would be desirable in order to monitor progress toward the objective.

DEFINITIONS OF KEY CONCEPTS AND ESTIMATES OF THE SIZE OF THE TARGET POPULATION

The first National Education Goal is that all children will start school ready to learn. But what does the phrase "ready to learn" mean? The goal also refers to "disadvantaged and disabled children." To which children do these terms refer? How many of them are there in the U.S. child population? The disadvantaged and disabled children are to have access to "high quality and developmentally appropriate preschool programs." How can one tell if a preschool program has these characteristics? In the pages that follow, we try to provide answers to these questions.

What is the meaning of "ready to learn"?

"Ready to learn" is usually taken to mean that the child is prepared to deal successfully with the first grade curriculum in a typical U.S. grade school, and with the social demands of the elementary school classroom. Basic proficiency in spoken English is a needed tool, as is a good deal of concrete knowledge. Most 6-year-olds arrive at first grade already knowing things like their own names and ages, the letters of the alphabet, the integer numbers from one to 20, and the words for a variety of shapes and colors.

Perhaps even more important than mastery of simple facts and concepts is attainment of sufficient social and emotional maturity for coping with the challenges that grade school poses

to the child. The child must be able to be separated from his or her parents for most of the day without becoming upset. She must be capable of focusing attention on what the teacher is saying and doing, without becoming distracted by the intense stimulation that a classroomful of other children provides. She must be willing to follow directions and able to sit more or less still for more than a few minutes, wait her turn, and get along with other children without doing things like hitting, biting, or kicking, on the one hand, or being overly shy or withdrawn on the other. She should show at least mild interest in the subject matter that is taught in elementary school and be able to absorb the material on some level.

Kellam and his colleagues (1975) and Alexander and Entwisle (1988) have found that first grade pupils who display the kind of "personal maturity" attributes described above not only get along better with teachers and classmates, they attain higher scores on standardized tests of reading and arithmetic achievement at the end of the school year.

Which children are "disadvantaged"?

"Disadvantaged children" are those whose family backgrounds and life circumstances make it unlikely that they will obtain the stimulation and encouragement that help make children successful in school. Poverty is often taken as an indicator of educational disadvantage, as are low parent education levels (neither parent has completed high school), low parental IQ, and recent

immigration from a non-English-speaking country. Other, more debatable signs of possible educational disadvantage are minority ethnic status, being the child of an unmarried teen-aged mother, and growing up in a single-parent household.

Educational disadvantage can be assessed directly by means of an instrument such as the HOME scale (Caldwell & Bradley, 1984), which is based on an interview with the mother and direct observation of the physical environment in the household and mother-child interaction during the home visit. An abbreviated version of the HOME has been used to assess the childrearing practices of a nationally-representative sample of U.S. women in their twenties and early thirties (Baker & Mott, 1989; Parcel & Menaghan, 1990). Although the scale is sometimes criticized for having a middle-class bias, HOME scores do predict to children's grades and achievement test scores, even when parent education and family income are controlled (Moore & Snyder, 1990).

Studies using the HOME scale and other assessment methods have shown that parents in low-income families in the U.S. are less apt to read to their children or provide other forms of intellectual stimulation compared with parents in non-poor families (Elardo & Bradley, 1981). Additionally, they are more apt to deal with their children in ways that are punitive, unresponsive, or otherwise detrimental to the healthy emotional development of their children (McLoyd, 1990). Among the children assessed in the National Longitudinal Survey of the Labor Market Experience of Youth (NLSY), two-thirds of 3-5 year-olds in low-

income families were found to have unstimulating home environments and about one-quarter were in homes that were clearly deficient in emotional support or intellectual stimulation as measured by the HOME scale (Zill et al., 1990). On the other hand, material deprivation does not inevitably imply intellectual impoverishment. There are plenty of examples of immigrant families that have managed to inculcate a strong academic orientation in their children despite a lack of material resources.

Some programs, such as Chapter 1 of the Elementary and Secondary Education Act, have statutory provisions which limit services to certain children. Children must first live in low-income areas where the schools they do or will attend are selected for the Chapter 1 program. Then, to participate in Chapter 1, a child must be educationally deprived, which the program has defined as children whose "educational attainment" is below the level that is appropriate for children of their age. For very young children, who develop at different rates, appropriate educational attainment is difficult to determine.

How many disadvantaged children are there?

The number of U.S. children who have one or more signs of educational disadvantage in their backgrounds is substantial. For example, nearly one out of every four U.S. children under the age of six, or about five million children, live in families whose incomes are below the official poverty level (National

Center for Children in Poverty, 1990). During the late 1980s, one out of every five births in the U.S. was to a mother who had not completed high school (National Center for Health Statistics, 1990). This made for a total of about 800,000 infants per year born with this marker of disadvantage.

Obviously, it is possible to change the size of the child population that is deemed to be "at risk" by using different risk factors or combinations of criteria to define disadvantage. If, for example, educational disadvantage was determined by the family being below the poverty line and the mother having less than a high-school education, the number of young children at risk would be about 45 percent of the total child poverty population, or about 380 thousand children per single year of age. It seems unlikely, though, that even a fairly stringent definition of educational disadvantage would go much below 10-11 percent of the preschool-aged population.

Which children are "disabled"?

"Disabled children" are those who have a learning disability, a sensory or motor impairment, a chronic illness or other physical, mental, or emotional, condition that interferes with their ability to attend school or do regular school work at grade level. The Education for All Handicapped Children Act and attendant regulations define ten categories of educationally-relevant disability: learning disabled; speech impaired; mentally retarded; seriously emotionally disturbed; hearing impaired;

orthopedically handicapped; other health impaired; visually handicapped; multihandicapped; and deaf-blind (U.S. Office of Special Education and Rehabilitative Services, 1982).

How many disabled children are there?

Combining across handicap categories, there were about 4.1 million elementary and secondary students, and 363 thousand preschool students receiving special education services in 1988 (National Center for Education Statistics, 1990, p. 130). The school-aged children receiving special education constituted about 10 percent of total public school enrollment for grades K-12, whereas the preschoolers receiving special education comprised about 3.5 percent of all 3-5 year-olds in the U.S.

The proportion of students participating in special education programs has increased by about 20 percent from the levels of the late 1970s, when the handicapped laws were put into effect (House Select Committee on Children, Youth, and Families, 1989, pp. 142-143; NCES, 1990, pp. 46-47). Much of the increase is attributable to growth in the "learning disabled" category, which increased from about 2 percent to about 5 percent of total enrollment. The learning disabled also constitute the single largest category of handicapped schoolchildren, comprising about 47 percent of elementary and secondary children receiving special education services.

Among preschool children, however, many of the learning disabilities that will eventually be diagnosed are not fully

apparent. In the 1988 National Health Interview Survey on Child Health, only 1.6 percent of 3-5 year-old children were described by their parents as having learning disabilities. By contrast, 6.8 percent of 6-11 year-olds were so described (Zill & Schoenborn, 1990). Obviously, many learning disabilities are only detected when the child gets to elementary school and starts trying to read, write, and calculate.

It can certainly be argued, though, that a larger proportion of learning disabilities would be detected before first grade if proper screening procedures were instituted, and that children with currently undetected disabilities could benefit from receiving special education services prior to elementary school. If that were indeed the case, the proportion of preschoolers eligible for such services could well double or triple in the future.

It should also be noted that the proportion of schoolchildren receiving services for the "seriously emotionally disturbed" is much smaller than the proportion who have significant emotional or behavioral problems, according to parent or teacher reports. Expert panels assembled by the Institute of Medicine (1989) and the Office of Technology Assessment (1986) have estimated that 12-15 percent of U.S. children suffer from mental disorders. By contrast, less than one percent of elementary and secondary students receive special education services for the emotionally disturbed (NCES, 1990, p. 131).

In the 1988 National Health Interview Survey on Child Health, 13 percent of 6-11 year-olds, and 19 percent of 12-17 year olds were reported by parents to have had significant emotional or behavioral problems. The proportion of 3-5 year-olds with such problems was about 5 percent (Zill & Schoenborn, 1990). Clearly, this another area where demand for services could grow in the future.

Assessing the Quality of Preschool Programs

Developmental research has demonstrated that exposure to school-like settings prior to first grade can help children to acquire the knowledge and develop the social skills that "school readiness" entails (Howes, 1988). However, large individual differences in cognitive and emotional development will still be evident, even with uniform preschool experience. The kinds of experiences that help to nurture young children's cognitive, emotional, and social development are more likely to occur if the preschool program is a "high-quality" and "developmentally-appropriate" one.

What is a "high-quality" preschool program?

The quality of a preschool program can be defined by the nature of the interactions the child has in the program with adults, other children, and play and learning materials. These experiences should be intellectually stimulating, emotionally supportive, and responsive to the child's interests,

capabilities, and stage of development. There has to be enough order and group control that the interests and behavior of a few children do not monopolize the class agenda. At the same time, discipline should not be harsh or demeaning (Phillips, 1987; Kagan, 1990).

Certain structural attributes and teacher characteristics tend to be correlated with positive preschool experiences for children and are often used as indicators of program quality. The structural attributes include small group sizes, relatively low pupil-to-staff ratios, relatively high wage rates for staff, low staff turnover rates, the availability of a rich variety of play and learning equipment, and flexible and "child-friendly" arrangements of the physical space of the classroom (Whitebook, Howes, & Phillips, 1989; Hayes et al, 1990). Favorable teacher characteristics include training and experience in early childhood education, intelligence, warmth, patience, and enjoyment of young children (Arnett, 1989; Phillips, 1987).

Standardized procedures have been developed for direct assessment of program quality through on-site observation of classrooms in operation (Harms & Clifford, 1980; Arnett, 1989). Several hours of observation are required to get a sense of the range of activities offered to children, the tone of the caregiver, the safety of the environment, the types and quality of equipment available, the amount of attention paid to language and social development, and the general classroom atmosphere (happy and busy versus chaotic or stressful). The National

Association for the Education of Young Children (NAEYC) has a well-respected program for the accreditation of early childhood programs, and the fact that a program has received accreditation from NAEYC is probably a good indication of quality (Bredenkamp & Apple, 1986; Recken, 1989). However, only a small proportion of preschool programs nationwide have gone through the voluntary process of seeking accreditation.

Per-pupil expenditures are at least a rough gauge of program quality. The fact that a good deal of money was spent on teacher salaries and other expenses is, of course, no guarantee that the money was well spent. There are, moreover, geographic variations in wage rates and occupancy costs that have little to do with variations in program quality. But excellence in early childhood education is seldom attained on the cheap. The National Child Care Staffing study found that, of various structural, experiential, and working-condition factors, staff wages were the most important predictor of child care quality and staff turnover (Whitebook, Howes, & Phillips, 1989).

CURRENT ENROLLMENT PATTERNS

What is the current situation as far as preschool enrollments of disadvantaged and disabled children are concerned? And what is known about the quality of the preschool programs these children attend? Annual data on preschool enrollments are avail-

able from questions put to parents in the October supplement to the Current Population Survey (Bureau of the Census, 1990) and from counts of children enrolled in Head Start (Department of Health and Human Services, 1990) or in preschool programs for the handicapped (Office of Special Education, 1990). These data have their flaws, but they provide at least a rough picture of over-time trends and group variations in preschool participation.

Information on the quality of the programs is much more limited, but some indicators such as group sizes, adult: child ratios, teacher salary levels, staff turnover rates, and per-child expenditures may be drawn from administrative records or studies such as the Public School Early Childhood Study (Mitchell, Seligson, & Marx, 1989). Additional data will soon be available from the Profile of Child Care Settings survey and related studies being sponsored by the Department of Education.

Preschool Participation of Disadvantaged Children

Data from the Current Population Survey (CPS) indicate that 3- and 4-year-olds in low-income families are significantly less likely to be enrolled in nursery school or pre-K programs than children in families with higher incomes.

- o In October 1986, 27 percent of 3- and 4-year-olds in families with incomes below \$10,000 were enrolled in pre-school, compared with 42 percent of those in families with higher incomes (U.S. House Select Committee, 1989, p. 137).

By contrast, income-related differences in pre-primary enrollment are not found at age 5, when public kindergarten programs become widely available.

- o In October 1986, 86 percent of 5-year-olds in families with incomes under \$10,000 were enrolled in kindergarten or pre-K programs, compared with 87 percent of those in families with higher incomes (U.S. House Select Committee, 1989, p. 137).

Private versus public programs. There are also noteworthy differences by income in the proportion of preschoolers who are attending private as opposed to public early childhood programs.

- o Among white 4-year-olds in 1984, only 12 percent of those in families with incomes below \$10,000 were attending private nursery schools or early education programs. This amounted to 34 percent of all preschool pupils in this income category.
- o By contrast, 44 percent of those in families with incomes of \$20,000 or over were attending such programs. That amounted to 75 percent of preschool pupils in this higher income class.
- o Among black 4-year-olds with family incomes below \$10,000, 8 percent of all children, or 20 percent of all pupils, were in private programs.
- o Among black 4-year-olds with family incomes of \$20,000 or more, 24 percent of children, and 49 percent of pupils, were in private programs (Pendleton, 1986, p. 127).

Over-time trends in enrollment by income. Another pertinent finding from the CPS data is that recent increases in preschool enrollment have been greater among children from middle-class families than among those from low-income families.

- o Between 1977 and 1986, the pre-primary enrollment of 3- and 4-year-olds in families with incomes of \$10,000 and above increased from 33 percent to 42 percent, a 27-percent increase.
- o Over the same time span, the pre-primary enrollment of 3- and 4-year-olds in families with incomes below \$10,000 went from 26 percent to 27 percent, a 4-percent increase that was not statistically significant (U.S. House Select Committee, 1989, p. 137).

Differences by race and Hispanic origin. Racial breakdowns of pre-primary enrollment data from the CPS show few differences between black and white children in overall levels of participation at ages 3 and 4. In 1987, for example, 38 percent of white children of these ages and 37 percent of black children were enrolled in pre-K or kindergarten (NCES, 1990, pp. 136-137; U.S. House Select Committee, 1989, p.137).

However, given the fact that average family income levels of black families with young children are substantially lower than those of white families with young children (U.S. House Select Committee, 1989, pp. 102-103), and given the relationship between

family income and preschool participation shown above, it must be the case that, at a given family income level, the preschool participation rates of black children are actually higher than those of whites. Tabulations of 1984 enrollment data for 3- and 4-year-olds by race and income seem to confirm this, although the sample of black children was small enough so that the observed differences could not be said to be statistically significant (Pendleton, 1986, p. 127). (The observed differences were also more sizable for 3-year-olds than for 4-year-olds.)

- o A difference that was statistically significant was that black children were more likely than whites to be enrolled in public preschool at all levels of family income.

Hispanic children. Pre-primary enrollment levels among Hispanic children have been significantly lower than those for non-Hispanic children.

- o In 1987, 30 percent of Hispanic 3- and 4-year-olds were enrolled in nursery school or kindergarten, as opposed to 38 percent of non-Hispanic children of these ages (NCES, 1990, p. 135).
- o However, pre-primary enrollment levels for Hispanic children of these ages were 50 percent higher in 1987 than they had been in 1977, when they stood at 20 percent (U.S. House Select Committee, 1989, p. 137).

Limitations of the CPS data. As already mentioned, the enrollment estimates given above are based on relatively small subgroups from the CPS October sample, and are hence subject to considerable sampling fluctuation. The data are also subject to error because they are based on parent responses to the question: "Is (the child) attending or enrolled in nursery school or kindergarten?" The Bureau of the Census takes this to include organized educational experiences lasting for children attending prekindergarten or kindergarten classes including Head Start programs. Such programs may be offered by a public or private school or by some other agency. Custodial care in private homes is not included. However, household respondents may interpret the question as they wish, unless they ask for clarification, and errors may occur because of misunderstanding of what the terms in the question mean. The term "Head Start" does not explicitly appear in the question.

Estimates of enrollment levels from program counts

In addition to the Current Population Survey data, preschool enrollment levels among disadvantaged children may be estimated from participant counts in programs such as Head Start, preschool programs funded under Chapter I of the Elementary and Secondary Education Act, and state- and local-funded prekindergarten programs.

Head Start. In fiscal year 1989, 451,000 children (about 22,000 of whom were non-poor) participated in Head Start in more than 1,200 local programs around the country. Sixty-four percent of the children who participated were 4-year-olds, 25 percent were age 3, and 8 percent were age 5. Most of the programs were part-day classes that operated only during the academic year. Eligibility guidelines for Head Start require that at least 90 percent of the children served come from families with incomes at or below the poverty level, and indications are that these guidelines are being met or exceeded. In 1988, more than 75 percent of all Head Start families had incomes below \$9,000, more than half were headed by a single parent, and about 47 percent were AFDC recipients (U.S. House Committee on Ways and Means, 1990; National Health Policy Forum, 1990).

A frequently cited coverage figure is that Head Start serves about 18 percent of 3- to 5-year-old children living in poor families (Hayes, Palmer, and Zaslow, 1990; U.S. House Committee on Ways and Means, 1990). However, this figure is calculated on the presumption that poor children could receive the service for each of three years (ages 3, 4, and 5). As we have seen, most 5-year-olds from all income and ethnic groups are enrolled in kindergarten. If the participation rate were instead calculated by individual ages, the proportion served of 4-year-olds in poverty-level families would be about 31 percent, while the proportion of 3-year-olds would be about 12 percent.

Both the Administration and Congress are acting to increase funding for Head Start by about \$500 million, with much of the increase to be used for expansion of enrollment. However, a number of educators have argued that at least a portion of the additional funds should be used to upgrade the quality and duration of existing programs (Granger, 1990; National Health Policy Forum, 1990).

Pre-kindergarten programs supported by Chapter 1 funds.

Chapter 1 of the Elementary and Secondary Education Act provides a source of federal funds to state education agencies for the support of compensatory education programs in areas with high proportions of economically disadvantaged children. The funds are to be used at the discretion of local school districts, and supporting pre-kindergarten programs is one way in which they may be used.

In 1987-88, there were some 69,000 children who participated in pre-kindergarten classes, and 317,000 who took part in kindergarten classes, supported by Chapter 1 funds (Steele & Gutmann, 1989). The pre-kindergarten children made up one percent, and the kindergarten children, 6 percent, of the 5 million pupils who took part in elementary or secondary programs funded under Chapter 1. Most of the young children who participate in Chapter 1 programs are believed to be from low-income or otherwise "at risk" families, although some

participating children have learning disabilities without being from disadvantaged backgrounds.

Assuming that most of the participating children are disadvantaged, and that the majority of those in the pre-K programs are 4-year-olds, the Chapter 1 pre-K enrollment number is equivalent to about 9 percent of all 4-year-olds from families at or below the poverty level. The Chapter 1 kindergarten enrollment total is equivalent to about 42 percent of all 5-year-olds from poor families. Together, the 385,000 pre-K or kindergarten students comprise about 25 percent of poor 4- and 5-year-olds.

State-funded pre-kindergarten programs. As of 1987, 27 states had pre-kindergarten programs subsidized by state or local funds. In 20 of the states, the programs were specifically targeted at low-income, limited English proficiency, migrant, or otherwise "at risk" children. In 7 states, programs were open to all children in the eligible age-range (Mitchell, Seligson, & Marx, 1989; Education Commission of the States, 1990). Roughly 200,000 children nationwide took part in these state-funded programs, with the majority being 4-year-olds. We estimate that about 100,000 of the children were 4-year-olds from low-income families, which would comprise about 12 percent of all 4-year-olds from poor families.

Summary. When participant count data from the various programs are considered together, it appears that, nationwide, about half of all 4-year-olds in poor families are receiving preschool instruction, either from Head Start (31 percent), Chapter 1 (9 percent), or state-funded programs (12 percent). The same is true for less than 20 percent of poor 3-year-olds. By age 5, nearly all children from low-income families are enrolled in public school kindergarten or pre-kindergarten programs.

REFERENCES

- Alexander, K. L., & Entwisle, D. R. (1988). Achievement in the first 2 years of school: Patterns and processes. Monographs of the Society for Research in Child Development, 53(2, Serial No. 218).
- Arnett, J. (1989). Caregivers in daycare centers; does training matter? Journal of Applied Developmental Psychology.
- Baker, P. C., & Mott, F. L. (1989). NLSY child handbook, 1989. Columbus, OH: The Ohio State University, Center for Human Resource Research.
- Bredenkamp, S., & Apple, P. L. (1986, November). How early childhood programs get accredited: An analysis of accreditation decisions. Young Children, pp. 34-37.
- Caldwell, B. M., & Bradley, R. H. (1984). Home observation for the measurement of the environment. Little Rock, AK.
- Charlesworth, R. (1989). 'Behind' before they start? Deciding how to deal with the risk of kindergarten 'failure.' Young Children, 44(3), 5-13.
- Council of Chief State School Officers. (1988). State profiles: Early childhood and parent education and related services. Washington, DC: Author.
- Council of Chief State School Officers. (1988). A guide for state action: Early childhood and family education. Washington, DC: Author.
- Elardo, R. D., & Bradley, R. H. (1981). The Home Observation for Measurement of the Environment (HOME) Scale: A review of research. Developmental Review, 1, 113-145.
- Freeman, E. B. (1990). Issues in kindergarten policy and practice. Young Children, 45(4), 29-34.
- Granger, R. C. (1989, October). The staffing crisis in early childhood education. Phi Delta Kappan, 71, (2), 130-134.
- Greenberg, P. (1990). Ideas that work with young children. Why not academic preschool? (Part 1). Young Children, 45(2), 70-80.
- Gullo, D. F. (1990). The changing family context: Implications for the development of all-day kindergartens. Young Children, 45(4), 35-39.

- Harms, T., & Clifford, R. (1980). Early Child Environment Rating Scale. New York: Teachers College Press, Columbia University.
- Hayes, C. D., Palmer, J. L., & Zaslow, M. J. (Eds.) (1990). Who cares for America's children? Child care policy for the 1990s. Panel on Child Care Policy, Committee on Child Development Research and Public Policy, Commission on Behavioral and Social Sciences and Education, National Research Council. Washington, DC: National Academy Press.
- Hofferth, S. L., & Miller, B. A. (1989, July 15). Supporting statement: National Child Care Survey, 1989. Project report. Washington, DC: The Urban Institute.
- Howes, C. (1988). Relations between early child care and schooling. Developmental Psychology, 24, 53-57.
- Information Clearinghouse of the Education Commission of the States. (1989). Breakdown of pre-kindergarten funding by state. Denver, CO: Author.
- Institute of Medicine. (1989). Research on children and adolescents with mental, behavioral and developmental disorders: Mobilizing a national initiative. Washington, DC: National Academy Press.
- Kagan, S. L. (1990). Excellence in early childhood education: Defining characteristics and next-decade strategies (OERI Publication No. IS 90-986). Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement.
- Kellam, S. G., Branch, J. D., Agrawal, K. C., & Ensminger, M. E. (1975). Mental health and going to school. The Woodlawn program of assessment, early intervention, and evaluation. Chicago: The University of Chicago Press.
- Lande, J. S., Scarr, S., Gunzenhauser, N. (Eds.) (1989). Caring for children: Challenge to America. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Lombardi, J. (September 1990). Head Start: The nation's pride, a nation's challenge. Recommendations for head start in the 1990s. Young Children, 45(6), 22-29.
- Lytle, J. H. (December 14, 1988). Revised Chapter I opens options for schoolwide plans. Education Week, p. 32.
- Marx, E., & Granger, R. C. (1990). Public policy report. Analysis of salary enhancement efforts in New York. Young Children, 45(3), 53-59.

- Marx, F., & Seligson, M. (1988). The public school early childhood study: The state survey. New York: Bank Street College of Education.
- McLoyd, V. C. (1990, April). The impact of economic hardship on black families and children: Psychological distress, parenting, and socioemotional development. Child Development, 61(2), 311-346.
- Mitchell, A., Seligson, M., & Marx, F. (1989). Early childhood programs and the public schools: Between promise and practice. Dover, MA: Auburn House.
- Moore, K. A., & Snyder, N. O. (1990). Cognitive development among children of adolescent mothers. Washington, DC: Child Trends, Inc. (Under review).
- National Center for Children in Poverty. (1990). Five million children: A statistical profile of our poorest young citizens. New York: Columbia University, School of Public Health.
- National Center for Education Statistics. (1990, July). Comparisons of public and private schools, 1987-88 (DR-SAS-87/88-2.1). Washington, DC: U.S. Department of Education Office of Educational Research and Improvement.
- National Center for Education Statistics. (1990). The condition of education, 1990. Volume 1. Elementary and secondary education. (NCES 90-681). Washington, DC: U.S. Government Printing Office.
- National Center for Education Statistics. (1985). Contractor report: The school-age handicapped (NCES 85-400). Washington, DC: U.S. Government Printing Office.
- National Center for Health Statistics. (1990, August 15). Advance report of final natality statistics, 1988. Monthly Vital Statistics Report, 39(4).
- National Health Policy Forum. (1990). The future of Head Start. Issue Brief No. 544. Washington, DC: The George Washington University.
- Parcel, T. L., & Menaghan, E. G. (1989). Child home environment as a mediating construct between SES and child outcomes. Draft manuscript.
- Phillips, D. (Ed.) (1987). Quality in child care: What does research tell us? Washington, DC: National Association for the Education of Young Children.

- Recken, R. (1989, January). Accreditation update: Who gets accredited? Young Children, 44(2), 11-12.
- State Policy Research, Inc. (1990). States in profile (Tables G-14 and G-15). Washington, DC: Brizius & Foster and State Policy Research, Inc.
- Steele, D., & Gutmann, B. (1989, May). A summary of state Chapter I participation and achievement information for 1986-87 (Contract No. 300-86-0094). Washington, DC: U.S. Department of Education, Office of Planning, Budget & Evaluation.
- U.S. Congress, Office of Technology Assessment. (1986). Children's mental health: Problems and services - A background paper (pp. 24-27). OTA-BP-H-33. Washington, DC: U.S. Government Printing Office.
- U.S. Department of Education. (1990). Chapter 1 policy manual: Basic programs operated by local educational agencies. Washington, DC: U.S. Government Printing Office.
- U.S. Department of Education. (1990). Even Start: Questions and answers. Washington, DC: Author.
- U.S. Department of Education. (1990, July). National Goals for Education. Washington, DC: Author.
- U.S. Department of Education. (1989, March 23). Even Start program; Final regulations. (34 CFR Part 212). Federal Register, 54(55), 12138-12144.
- U.S. Department of Education. (1989, October 27). Cavazos announces new Even Start awards. News release.
- U.S. Department of Education. (1989). Table 146 in Digest of Education Statistics, 1989. Washington, DC: U.S. Government Printing Office.
- U.S. General Accounting Office. (1990). Early childhood education: What are the costs of high-quality programs? (GAO/HRD-90-43BR). Washington, DC: Author.
- U.S. House of Representatives Committee on Ways and Means. (1990, June 5). 1990 Green Book: Overview of entitlement programs. Washington, DC: U.S. Government Printing Office.
- U.S. House of Representatives Select Committee on Children, Youth, and Families. (1989). U.S. Children and their families: Current conditions and recent trends, 1989 (3rd ed.). Prepared by Child Trends, Inc. Washington, DC: U.S. Government Printing Office.

- U.S. Office of Special Education and Rehabilitative Services.
(revised as of July 1, 1982). Assistance to states for
education of handicapped children (P.L. 94-142 Regulations).
U.S. Code of Federal Regulations, Part 300, pp. 781-857.
Washington, DC: U.S. Government Printing Office.
- Whitebook, M., Howes, C., & Phillips, D. (1989). Who cares? Child
care teachers and the quality of care in America. Executive
summary of the National Child Care Staffing Study. Oakland,
CA: Child Care Employee Project.
- Willer, B., & Bredekamp, S. (July 1990). Redefining readiness: An
essential requisite for educational reform. Young Children,
pp. 22-24.
- Zigler, E. F., & Gordon, E. W. (eds.) (1982). Day care:
Scientific and social policy issues. Boston: Auburn House.
- Zill, N., Moore, K. M., Nord, C. W., Stief, T. M., Wolpow, E. B.,
Krysan, M., & Daly, M. L. (1990). Current characteristics of
welfare families and their implications for the Family
Support Act. Washington, DC: Child Trends, Inc. (in
preparation).
- Zill, N., & Schoenborn, C. A. (in press). Health of our nation's
children: Developmental, learning, and emotional problems.
United States, 1988. ADVANCE DATA from Vital and Health
Statistics, National Center for Health Statistics.